

Serial No. 10/052,295

Claim 1 (currently amended). The method of providing for a fluid treatment, that includes

- a) providing a treatment zone containing granular activated charcoal in pellet form, and
- b) providing a stream of water containing nutrients, contaminant degrading microbes and dissolved oxygen, and
- c) introducing said stream to said treatment zone to effect adsorption of said nutrients and microbes onto the granular activated charcoal, thereby to provide a contaminant treatment matrix, whereby contaminant in fluid flow through the matrix is reduced[[.]], and
- d) providing a seeding zone in matrix form upstream of said treatment zone and through which said stream of water is passed prior to its introduction to said treatment zone, to entrain microbes growing in the matrix to which nutrient is supplied.

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Claim 2 (original). The method of claim 1 wherein the granular activated charcoal in said zone has one of the following forms:

- i) pellets
- ii) a mat or mats
- iii) fabric
- iv) a support matrix
- v) adsorption media.

Claim 3 (original). The method of claim 1 including passing treatable aqueous fluid into contact with said substances, in a treatment path, and recovering treated fluid from said path.

Claim 4 (original). The method of claim 1 wherein said granular activated charcoal is disposed as a porous support media for said nutrients and microbes.

Claim 5 (original). The method of claim 3 including adjusting the pH of the fluid to between 6.0 and 8.5 prior to said introducing step.

Claim 6 (original). The method of claim 5 including adjusting the temperature of said fluid to a level less than 110°F, prior to said introducing step.

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Claim 7 (original). The method of claim 1 including adjusting the temperature of said fluid to a level less than 110°F, prior to said introducing step.

Claim 8 (original). The method of claim 1 including introducing O₂ to said treatment zone.

Claim 9 (original). The method of claim 1 including aerating said treatment zone.

Claim 10 (original). The method of claim 1 including providing a series of said treatment zones, and a seeding zone upstream of said treatment zones, and from which microbes are supplied in fluid flow to the treatment zones, for adsorption on the granular activated charcoal therein.

Claim 11 (original). The method of claim 1 including passing waste water containing toxic contaminants through said matrix, to reduce said contaminants.

Claim 12 (original). The method of claim 1 including passing gas transported toxic through said matrix, to reduce said contamination.

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Claim 13 (new). The method of providing for a fluid treatment, that includes

- a) providing a treatment zone containing granular activated charcoal, and
- b) providing a stream of water containing nutrients, contaminant degrading microbes and dissolved oxygen, and
- c) introducing said stream to said treatment zone to effect adsorption of said nutrients and microbes onto the granular activated charcoal, thereby to provide a contaminant treatment matrix, whereby contaminant in fluid flow through the matrix is reduced, and
- d) providing a seeding zone in matrix form upstream of said treatment zone and through which said stream of water is passed prior to its introduction to said treatment zone, to entrain microbes growing in the matrix to which nutrient is supplied.